Northeast Area News

MLRA Soil Survey Region 12 **Fall 2003**

In this Issue

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Ideas, suggestions, and comments are welcome. Please send items to: Kristina.wiley@ma.usda.gov.

Who were the first soil scientists in America?

By Stephen Gourley, State Soil Scientist, Vermont

The first soil scientists in America are almost always assumed to be those men that completed the first soil surveys in the late 1800s. Lewis and Clark are often given credit for conducting the first soil surveys in the west. Some early white settlers are often credited with making contributions that led to the development of soil science.

What is often forgotten is that many American Indian tribes relied in part on farming for food. In New England, farming was a way of life long before the Pilgrims set foot on Plymouth Rock.

The Abenaki Tribe, which occupied a large portion on Northern New England, has a number of words in their language that demonstrate that they had a good understanding of principals of soil science. Some examples include (Gordon M. Day, Western Abenaki Dictionary, Volume 2: English-Abenaki):

- aki – earth, land, ground, soil, world
- asakwamki – grey soil under moss, a podzol soil
- asakwamimskagw – a moss swamp
- azeskojagw – muddy soil
- begwi – sand
- bidhomkitan – silt
- senomkol - gravel
- mazalopskw – clay
- megoakw – a swamp
- mekwakaa – red earth
- mkazawiki – black soil

From the early accounts of white settlement in New England, it is clear that the local tribes were good farmers, most likely due in part to their understanding of soil science. In the beginning it was the American Indians who shared their harvest with white settlers who had little knowledge of farming. Undoubtedly, they also shared their knowledge of soils with the white settlers.

Other American Indian tribes who farmed the land must have also had a basic understanding of soil science. The evidence is there for the finding if you care to look beyond the history books. ■

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"The American Indian is of the soil, whether it be the region of forests, plains, pueblos, or mesas. He fits into the landscape, for the hand that fashioned the continent also fashioned the man for his surroundings. He once grew as naturally as the wild sunflowers; he belongs just as the buffalo belonged...."

—Luther Standing Bear; Oglala Sioux–1868-1937

Native American Heritage Month

Did you Know…

At the turn of the 20th century, people began making proposals for a day to honor Native Americans.

In 1914, Red Fox James, a member of the Blackfoot tribe, rode horseback from state to state in the hope of gaining support for a day of tribute.

The following year, Dr. Arthur C. Parker, a member of the Seneca tribe, persuaded the Boy Scouts of America to designate a day of recognition for Native Americans.

New York was the first state to observe American Indian Day in 1916.

Over the years, other states followed suit in designating a day to honor Native Americans.

In 1976, a Senate resolution authorized the president of the United States to declare the week of Oct. 10-16, 1976, as Native American Awareness Week.

The celebration was expanded to a month in 1990.

Source: education-world.com

MO Message

By Bruce Thompson, MO-12 Leader

Fiscal year 2004 has introduced us to several new and very interesting initiatives. The first is the common resource map (CRM). It will be used as part of the FOTG. It will be part of the reporting system used by the district conservationists. The state resource conservationists and engineers, who met as part of the IRT group, agreed with the state soil scientists that our MLRA regional map was excellent for the CRM. The CRM was further refined by using the STATSGO map at a scale of 1:250,000. The MLRA map was transferred to fit the polygon structure of the STATSGO map. The end result was a very close-fit excellent map. Chief Knight was the sponsor for the initiative and the state soil scientists and their staffs are congratulated for their excellent assistance. There were only a few minor join problems that should be corrected in the near future.

The second major initiative, again initiated by the chief, is to clear the publication backlog. There are about 500 soil surveys in various stages in the system awaiting publication. The maps may be ready but the manuscript is some place in the preparation stage; or the manuscript has been drafted, received a technical edit and review, and English edit but the maps are awaiting SSURGO development. State staffs are presently documenting time frames needed to complete the outstanding work. This may mean that staff time will need to be rescheduled, such that, completed surveys have a top priority.

We on the MO staff are aware that there will be a need for an additional editor in order to remove the backlog in four years. This is due to the states finally completing surveys that needed technical edits (100%) or completing SSURGO activities. This has resulted in at least 10 manuscripts being ready for English edit and 5 additional manuscripts being ready for technical review.

Other thoughts:

- The MO staff will continue to ask for documentation to support the transfer of provisional map units to the identification legend. Project leaders need to schedule their time and staff time such that mapping, manuscript preparation, and compilation are tracking at an equal rate.
- The concept for completing a survey is that four months after the mapping is completed, the compilation and draft manuscript should also be done. I am sure this would happen in the ideal world where surveys are adequately staffed to complete work in 3 to 5 years.
- Soil scientists could spend time on production activities instead of being used on other programs like NRI because they are the best qualified personnel to conduct these activities. Also, cool resource activities would be conducted using personnel dedicated to the activities. This most likely will not happen because of funding and personnel problems, but we look forward to working with appropriate personnel to complete the chief's initiatives. ■

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National Workshop on Subaqueous Soil

By Jim Turenne, Assistant State Soil Scientist, Rhode Island

During the week of July 14-18, 2003 a group of approximately 30 soil scientists, biologist, ecologists, geologists, and university professors met in Georgetown, Delaware for the first national workshop on subaqueous soils. The workshop was sponsored by the USDA-NRCS, University of Maryland (UMD), University of Rhode Island (URI), and the University of Maine (UME) and was geared for soil scientists interested in applying soil survey principals to subaqueous environments. Workshop leaders included Martin Rabenhorst (UMD), Philip King (NRCS), Mark Stolt (URI), and Laurie Osher (UME). The leaders provided an excellent workshop which consisted of morning field activities followed by afternoon and evening lectures.

Field activities included training on how to produce bathymetric maps of subaqueous landscapes, describing subaqueous soil profiles, vibracoring techniques, and soil mapping procedures. The field work was conducted in Delaware's Rehoboth Bay. Lectures consisted of an introduction to subaqueous soils, processes of subaqueous soil formation, subaqueous soil profile descriptions, soil survey principals and interpretations, coastal geology/geomorphology, soil taxonomy, and many other topics.

The workshop was held in perfect (although hot) weather and thanks to the excellent coordination and expertise of the workshop leaders, it provided a very informative perspective of this relatively new concept of soil science.

For those not familiar with the concept of subaqueous soils there are several key papers written on the subject in Soil Survey Horizons, Soil Science Society of America Journal (SSSAJ), and Geoderma. A paper just released on subaqueous soil-landscape relations in a Rhode Island Estuary by Bradley and Stolt has just been published in SSSAJ, you can read the abstract online at: http://soil.scijournals.org/cgi/content/abstract/67/5/1487.

Subaqueous soil surveys are currently being conducted in several states throughout the United States. Rhode Island will be actively setting up a subaqueous soil survey and plans to map all subaqueous soils in the Ocean State. ■

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Northeast Region Collegiate Soil Judging Contest

Mark H. Stolt, URI Associate Professor of Pedology and Soil-Environmental Science

University of Rhode Island (URI) hosted the 32nd annual Northeast Region Collegiate Soil Judging Contest. Teams from the University of Maryland, Ohio State, Wilmington College, Penn State, Delaware Valley College, University of New Hampshire, and the University of Rhode Island participated in the soil judging competition. Students, during the 3 days of practice and 2 days of competition, examined soils formed in outwash, dense till (both granitic and carbonifereous), friable till, ice-contact glacial deposits, and loessal parent materials. There was a great example of an esker in practice and several of the contest sites were on a sequence of kame terraces. A number of hydric soils, Psammaquents and Endoaquods, were also described and interpreted during the 5-day event. Three members of the Society of Soil Scientists of Southern New England (SSSSNE), Jim Turenne, Donald Parizek, and Mark Stolt, served as the official judges for the contest. The URI team, representing Southern New England at the competition, had 2 individuals in the top 12 for the individual competition and the URI teamed placed 2nd in the group judging competition. The efforts from the URI team earned them the rights to participate in the National Collegiate Soil Judging Contest in Illinois this spring. Thanks go out to all the SSSSNE members who help with the judging contest and those that offered financial assistance. ■

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Society of Soil Scientists of Southern New England 2003 Activities

By Jim Turenne, Assistant State Soil Scientist, Rhode Island

The Society of Soil Scientists of Southern New England (SSSSNE) had a very active year with activities that included the following:

Beyond Haybales (August 28, 2003) — An erosion control and Stabilization workshop, hosted by Arthur Allen and co-sponsored by Hydrograss Technologies of Oxford, MA. This was a one-day workshop with morning lectures and afternoon demonstrations in the field. Workshop participants had an opportunity to learn more innovative and effective measures for erosion control and soil stabilization.

Block Island (September 24 and 25) — Society members attended a soil/geology/ecology tour of Block Island, Rhode Island. The two-day event was held in perfect late summer weather on the beautiful offshore island. Participants observed the soil morphology of 10 soil test pits that had water table data recorded by Charlie Morgan and Dr. Mark Stolt. A talk on the islands biology and ecology was provided by Scott Cummings of the Nature Conservancy and Dr. Nels Barrett with the NRCS. A talk on the island geology was provided by Dr. Jon Boothroyd, Rhode Island State Geologist.

Other activities — The Society also provided support for three state Envirothon programs, assisted with the regional soil judging competition held at the University of Rhode Island (URI placed second), and published the 2003 registry of soil scientists. Information about SSSSNE can be found on their web site: http://nesoil.com/ssssne. The society also sells soil merchandise including state soil T-shirts, hats, jewelry, and a soil and environmental documents CD— just in time for the holidays! The web site also provides job announcements, soil and wetland workshops, and other activities of interest.

The Society has a very active board of directors to thank for their hard work organizing events and keeping the society's objectives on course. The board is now trying to get members more involved with the Society by recruiting people to: serve as board members, help with the Spade and Auger Newsletter, assist with workshops, and provide information on what types of activities they would like the Society to conduct or sponsor. The Society is currently trying to raise funds for a Connecticut state soil monolith in memory of Ed Sautter at the Smithsonian Institute Soils Exhibit. ■

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Have a safe and happy Thanksgiving!